

Specifically, the Office States that (a) claims 2 and 10 are not clear as to how the parenthetical information is to be interpreted in the claim, and (b) claim 30 is not clear as to what "a constant shape" means.

(2) Claims 1, 6, 7, 11, 13, 16, 22, 23, 26, 27, 39, and 40 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,499,112 (to Kawai et al.). The Office Action states that (a) Kawai et al. disclose a light guide, a light emitting means, and a light diffusing section; (b) as to claim 6, Fig. 24A in Kawai et al. discloses a second light emitting means; (c) as to claim 7, Fig. 20A in Kawai et al. discloses a mirror; and (d) as to claim 11, Fig. 26A in Kawai et al. discloses a saw-toothed light diffusing region.

(3) Claims 2-5, 8-10, 12, 14-15, 17-21, 24-25, 28-38, and 41-73 are rejected under 35 U.S.C. §103(a) as unpatentable over Kawai et al. The Office Action states that (a) as to claims 2-5 and 24-25, Kawai et al. fails to disclose the specifics of the light transmitting medium of the light guides, but that it is notoriously old in the art to have such a medium with a high transmittance material, such as acrylic, so that light is transmitted to the original to be illuminated; (b) as to claims 69-73, it would have been obvious to have plural light sources because this would allow for color scanning as is well known in the art; and (c) as to the remaining claims, such limitations of the diffusing layer are inherent in Kawai et al.

(4) The Office Action indicates that claims 95-96 and 100-107 are allowed.

Detailed Response to Pending Objections and Rejections

Applicants acknowledge with appreciation Examiner's indication that claims 95-96 and 100-107 are allowable.

As to the rejection of claims 2, 10 and 30 under 35 U.S.C. § 112, Applicants have amended claim 2 to more clearly recite the parenthetical information. As to claim 10, Applicants note that the phrases

“(100 to 0.013)a” and “(400 to 0.05)S” are used in the relevant art to express values of a center line average roughness Ra and a maximum height Rmax, as set forth in the related descriptions in the specification, for example, at page 38, line 30 to page 39, line 3. Because this format of expressing Ra and Rmax is well known in the art, Applicants respectfully submit that the meaning and interpretation of the parentheticals are clear. Applicants have canceled claim 30. Based on the forgoing, Applicants respectfully request that the rejections of claims 2, 10 and 30 be withdrawn.

As to the rejection of claims 1, 6, 7, 11, 13, 16, 22, 23, 26, 27, 39, and 40, as unpatentable over Kawai et al. under 35 U.S.C. § 102(e), claim 1 (as amended) recites in pertinent part:

A linear illumination device comprising:

... a light diffusing section formed on part of the side face of the guide, for diffusing the light incident thereon by refraction, ... (Underlining added.)

Support for diffusing the light incident on the guide by refraction can be found in the specification at page 36, lines 20 to page 37, line 3, where it is explained that the light beams in the guide are refracted or totally reflected in accordance with their incident angles, and the light beams incident on the light diffusing section are diffused instead of being totally reflected.

Although the term “diffusion” is used in the present specification in connection with the light diffusing section, one of ordinary skill in the art readily understands, upon reviewing the present specification as a whole, that the light diffusing section actually diffuses the incident light based on refraction, instead of total reflection. In accordance with the present invention, therefore, the light diffusing section diffuses the light incident thereon by refraction, instead of total reflection.

In contrast, Kawai et al. discloses light beams incident on an area 5 (which is asserted by the Examiner as corresponding to the claimed light diffusing section of the present invention) for reflecting or diffusing the light beam. It is clear that in Kawai et al., the light beams are diffused or scattered by total reflection, or reflection in various directions based on the surface configuration of the area, rather than by refraction as in the present invention. Because, Kawai et al. do not disclose or suggest a linear illumination device where a light diffusing section formed on part of the side face of the guide diffuses the light incident thereon by refraction, claim 1 is allowable. Likewise, because claims 6, 7, 11, 13, 16, 22, 23, 26, 27, 39, and 40 depend directly or indirectly from claim 1, these claims are also allowable.

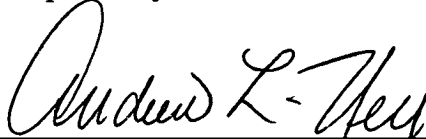
As to the rejection of claims 2-5, 8-10, 12, 14-15, 17-21, 24-25, 28-38, and 41-73 as unpatentable in view of Kawai et al. under 35 U.S.C. §103(a), because these claims depend directly or indirectly from claim 1, these claims are also allowable over Kawai et al. for at least the reasons noted above. In addition, claims 28, 29, 31-33, 43, 45, 59-61, and 64, further limiting the configurations of the light diffusing section and/or guide, are allowable over Kawai et al. because the configurations recited in these claims are neither taught nor suggested in Kawai et al.

Lastly, with respect to the comment in the Office Action that "it is notoriously old in the art to have such a medium with a high transmittance material, such as acrylic, so that light is transmitted to the original to be illuminated[.]," Applicants note that at least the range of numerical limitations of a refractive index of the light transmitting material as recited in claim 3, and the relationships of refractive indices of the light diffuser and light transmitting resin, and the guide as recited in claims 18 and 19, are not known in the art. Consequently, claims 3 and 18-19 are allowable in view of Kawai et al. for the added reason that Kawai et al. does not teach or suggest the limitations recited in these claims.

Conclusion

Based on the forgoing amendments and remarks, Applicants submit that this application is in condition for allowance which action is respectively requested.

Respectfully submitted,



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